



United States Environmental Protection Agency

Region 9 Laboratory

1337 S. 46th Street Building 201

Richmond, CA 94804

Subject: Analytical Testing Results - Project R04S63
SDG: 04168C

From: Brenda Bettencourt, Director
EPA Region 9 Laboratory
PMD-2

To: Chris Lichens
Site Cleanup Section 4
SFD-7-4

Attached are the results from the analysis of samples from the **Omega Chemical OU2 June 2004 Sampling** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Vance Fong at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this report:

1,4-Dioxane



United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Site Cleanup Section 4

Project: Omega Chemical OU2 June 2004 Sampling

**75 Hawthorne Street
San Francisco CA, 94105**

Project Number: R04S63
Project Manager: Chris Lichens

SDG: 04168C
Reported: 08/20/04 15:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
OC2-MW4B-W-0-23	0406036-01	Water	06/15/04 12:05	06/16/04 10:08
OC2-MW4A-W-0-25	0406036-02	Water	06/15/04 14:00	06/16/04 10:08
OC2-OW5-W-5-26	0406038-01	Water	06/16/04 09:45	06/17/04 09:22
OC2-OW6-W-0-27	0406038-02	Water	06/16/04 11:05	06/17/04 09:22
OC2-OW7-W-0-28	0406038-03	Water	06/16/04 12:30	06/17/04 09:22
OC2-OW8-W-0-29	0406038-04	Water	06/16/04 14:10	06/17/04 09:22
OC2-OW3-W-0-30	0406041-01	Water	06/17/04 08:30	06/18/04 10:00
OC2-OW3-W-1-31	0406041-02	Water	06/17/04 08:30	06/18/04 10:00
OC2-OW2-W-0-32	0406041-03	Water	06/17/04 11:50	06/18/04 10:00
OC2-OW1B-W-0-33	0406041-04	Water	06/17/04 10:05	06/18/04 10:00
OC2-OW1A-W-0-34	0406041-05	Water	06/17/04 13:00	06/18/04 10:00
OC2-MW4A-W-0-36	0406046-01	Water	06/21/04 11:00	06/22/04 10:03
OC2-MW4A-W-1-37	0406046-02	Water	06/21/04 11:00	06/22/04 10:03
OC2-MW4B-W-0-38	0406046-03	Water	06/21/04 12:15	06/22/04 10:03
OC2-MW4C-W-0-39	0406046-04	Water	06/21/04 13:15	06/22/04 10:03
OC2-MW2A-W-0-40	0406050-01	Water	06/22/04 08:10	06/23/04 10:13
OC2-MW5A-W-0-41	0406050-02	Water	06/22/04 09:15	06/23/04 10:13
OC2-MW6A-W-0-42	0406050-03	Water	06/22/04 10:25	06/23/04 10:13
OC2-MW9B-W-0-43	0406050-04	Water	06/22/04 11:35	06/23/04 10:13
OC2-MW10A-W-0-44	0406050-05	Water	06/22/04 12:50	06/23/04 10:13

For samples 0406038-04 and 0406041-05 high levels of 1,4-dioxane interfered with analysis of the surrogate compound 1,4-dioxane-d8 . Although low surrogate recoveries were encountered in the undiluted runs for these samples, it is not expected that this is an indication of a low bias to the 1,4-dioxane results, which were reported from 100- and 200-fold dilutions. Sample results were not flagged as estimates.



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**Semivolatile Organic Compounds by EPA Method 8270C
EPA Region 9 Laboratory**

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
0406036-01 : OC2-MW4B-W-0-23 Water Sampled: 06/15/04 12:05 Received: 06/16/04 10:08								
Semivolatile Organic Compounds by EPA Method 8270C								
1,4-Dioxane	1.8		1.0	ug/L	B4F0083	06/21/04	06/25/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	3.72		76 %		50-130	"	"	"
0406036-02 : OC2-MW4A-W-0-25 Water Sampled: 06/15/04 14:00 Received: 06/16/04 10:08								
Semivolatile Organic Compounds by EPA Method 8270C								
1,4-Dioxane	ND	Q1, J, U	1.0	ug/L	B4F0083	06/21/04	06/25/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	2.67		55 %		50-130	"	"	"
0406038-01 : OC2-OW5-W-5-26 Water Sampled: 06/16/04 09:45 Received: 06/17/04 09:22								
Semivolatile Organic Compounds by EPA Method 8270C								
Surrogate: 1,4-Dioxane-d8	3.60		75 %		50-130	B4F0083	06/21/04	06/25/04
0406038-01RE1 : OC2-OW5-W-5-26 Water Sampled: 06/16/04 09:45 Received: 06/17/04 09:22								
Semivolatile Organic Compounds by EPA Method 8270C								
1,4-Dioxane	170		5.0	ug/L	B4F0083	06/21/04	07/09/04	8270C/SOP315
0406038-02 : OC2-OW6-W-0-27 Water Sampled: 06/16/04 11:05 Received: 06/17/04 09:22								
Semivolatile Organic Compounds by EPA Method 8270C								
1,4-Dioxane	0.5	C1, J	1.0	ug/L	B4F0083	06/21/04	06/25/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	3.34		66 %		50-130	"	"	"
0406038-04 : OC2-OW8-W-0-29 Water Sampled: 06/16/04 14:10 Received: 06/17/04 09:22								
Semivolatile Organic Compounds by EPA Method 8270C								
Surrogate: 1,4-Dioxane-d8	0.351	Q7	7 %		50-130	B4F0083	06/21/04	06/26/04
0406038-04RE1 : OC2-OW8-W-0-29 Water Sampled: 06/16/04 14:10 Received: 06/17/04 09:22								
Semivolatile Organic Compounds by EPA Method 8270C								
1,4-Dioxane	5000		100	ug/L	B4F0083	06/21/04	07/09/04	8270C/SOP315
0406041-01 : OC2-OW3-W-0-30 Water Sampled: 06/17/04 08:30 Received: 06/18/04 10:00								
Semivolatile Organic Compounds by EPA Method 8270C								
1,4-Dioxane	1.2		1.0	ug/L	B4F0102	06/23/04	06/26/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	4.00		82 %		50-130	"	"	"



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Reported: 08/20/04 15:21

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
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0406041-02 : OC2-OW3-W-1-31 Water Sampled: 06/17/04 08:30 Received: 06/18/04 10:00

Semivolatile Organic Compounds by EPA Method 8270C

1,4-Dioxane	0.7	C1, J	1.0	ug/L	B4F0102	06/23/04	06/26/04	8270C/SOP315
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Surrogate: 1,4-Dioxane-d8	3.80		78 %	50-130	"	"	"	
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0406041-03 : OC2-OW2-W-0-32 Water Sampled: 06/17/04 11:50 Received: 06/18/04 10:00

Semivolatile Organic Compounds by EPA Method 8270C

1,4-Dioxane	ND	U	1.0	ug/L	B4F0102	06/23/04	06/26/04	8270C/SOP315
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Surrogate: 1,4-Dioxane-d8	3.91		80 %	50-130	"	"	"	
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0406041-04 : OC2-OW1B-W-0-33 Water Sampled: 06/17/04 10:05 Received: 06/18/04 10:00

Semivolatile Organic Compounds by EPA Method 8270C

1,4-Dioxane	39		1.0	ug/L	B4F0102	06/23/04	06/26/04	8270C/SOP315
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Surrogate: 1,4-Dioxane-d8	4.02		79 %	50-130	"	"	"	
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0406041-05 : OC2-OW1A-W-0-34 Water Sampled: 06/17/04 13:00 Received: 06/18/04 10:00

Semivolatile Organic Compounds by EPA Method 8270C

Surrogate: 1,4-Dioxane-d8	0.163	Q7	3 %	50-130	B4F0102	06/23/04	06/26/04	
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0406041-05RE1 : OC2-OW1A-W-0-34 Water Sampled: 06/17/04 13:00 Received: 06/18/04 10:00

Semivolatile Organic Compounds by EPA Method 8270C

1,4-Dioxane	8500		200	ug/L	B4F0102	06/23/04	07/09/04	8270C/SOP315
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0406046-01 : OC2-MW4A-W-0-36 Water Sampled: 06/21/04 11:00 Received: 06/22/04 10:03

Semivolatile Organic Compounds by EPA Method 8270C

1,4-Dioxane	33		1.0	ug/L	B4F0102	06/23/04	06/26/04	8270C/SOP315
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Surrogate: 1,4-Dioxane-d8	3.82		75 %	50-130	"	"	"	
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0406046-02 : OC2-MW4A-W-1-37 Water Sampled: 06/21/04 11:00 Received: 06/22/04 10:03

Semivolatile Organic Compounds by EPA Method 8270C

1,4-Dioxane	32		1.0	ug/L	B4F0102	06/23/04	06/26/04	8270C/SOP315
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Surrogate: 1,4-Dioxane-d8	3.96		78 %	50-130	"	"	"	
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Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
0406046-03 : OC2-MW4B-W-0-38 Water Sampled: 06/21/04 12:15 Received: 06/22/04 10:03								
Semivolatiles Organic Compounds by EPA Method 8270C								
1,4-Dioxane	27		1.0	ug/L	B4F0102	06/23/04	06/26/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	3.82		76 %		50-130	"	"	"
0406046-04 : OC2-MW4C-W-0-39 Water Sampled: 06/21/04 13:15 Received: 06/22/04 10:03								
Semivolatiles Organic Compounds by EPA Method 8270C								
1,4-Dioxane	0.7	C1, J	1.0	ug/L	B4F0102	06/23/04	06/26/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	3.69		75 %		50-130	"	"	"
0406050-01 : OC2-MW2A-W-0-40 Water Sampled: 06/22/04 08:10 Received: 06/23/04 10:13								
Semivolatiles Organic Compounds by EPA Method 8270C								
1,4-Dioxane	28		1.0	ug/L	B4F0111	06/24/04	06/26/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	3.33		67 %		50-130	"	"	"
0406050-02 : OC2-MW5A-W-0-41 Water Sampled: 06/22/04 09:15 Received: 06/23/04 10:13								
Semivolatiles Organic Compounds by EPA Method 8270C								
1,4-Dioxane	54		1.0	ug/L	B4F0111	06/24/04	06/26/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	3.47		69 %		50-130	"	"	"
0406050-03 : OC2-MW6A-W-0-42 Water Sampled: 06/22/04 10:25 Received: 06/23/04 10:13								
Semivolatiles Organic Compounds by EPA Method 8270C								
1,4-Dioxane	3.7		1.0	ug/L	B4F0111	06/24/04	06/26/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	3.50		70 %		50-130	"	"	"
0406050-04 : OC2-MW9B-W-0-43 Water Sampled: 06/22/04 11:35 Received: 06/23/04 10:13								
Semivolatiles Organic Compounds by EPA Method 8270C								
1,4-Dioxane	0.5	C1, Q1, J	1.0	ug/L	B4F0111	06/24/04	06/26/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	2.50		50 %		50-130	"	"	"
0406050-05 : OC2-MW10A-W-0-44 Water Sampled: 06/22/04 12:50 Received: 06/23/04 10:13								
Semivolatiles Organic Compounds by EPA Method 8270C								
1,4-Dioxane	7.2	Q1, J, Q7	1.0	ug/L	B4F0111	06/24/04	06/29/04	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	2.36	Q7	47 %		50-130	"	"	"



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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
EPA Region 9 Laboratory

Batch B4F0083 - 3520B CLLE - 1,4-Dioxane

Blank (B4F0083-BLK1)

Prepared: 06/21/04 Analyzed: 06/25/04

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	ND	U	1.0	ug/L						
Surrogate: 1,4-Dioxane-d8	3.77			"	5.04		75	50-130		

LCS (B4F0083-BS1)

Prepared: 06/21/04 Analyzed: 06/25/04

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	6.2		1.0	ug/L	5.02		124	50-130		
Surrogate: 1,4-Dioxane-d8	3.64			"	5.02		73	50-130		

Matrix Spike (B4F0083-MS1)

Source: 0406038-01

Prepared: 06/21/04 Analyzed: 06/25/04

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	260	Q10	1.9	ug/L	9.49	230	316	50-130		
Surrogate: 1,4-Dioxane-d8	6.95			"	9.49		73	50-130		

Matrix Spike Dup (B4F0083-MSD1)

Source: 0406038-01

Prepared: 06/21/04 Analyzed: 06/25/04

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	250	Q10	1.9	ug/L	9.67	230	207	50-130	4	30
Surrogate: 1,4-Dioxane-d8	7.47			"	9.67		77	50-130		

Batch B4F0102 - 3520B CLLE - 1,4-Dioxane

Blank (B4F0102-BLK1)

Prepared: 06/23/04 Analyzed: 06/26/04

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	ND	U	1.0	ug/L						
Surrogate: 1,4-Dioxane-d8	4.12			"	4.90		84	50-130		

LCS (B4F0102-BS1)

Prepared: 06/23/04 Analyzed: 06/26/04

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	5.9		1.0	ug/L	4.94		119	50-130		
Surrogate: 1,4-Dioxane-d8	3.92			"	4.94		79	50-130		

Batch B4F0111 - 3520B CLLE - 1,4-Dioxane

Blank (B4F0111-BLK1)

Prepared: 06/24/04 Analyzed: 06/26/04



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**Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
EPA Region 9 Laboratory**

Batch B4F0111 - 3520B CLLE - 1,4-Dioxane

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	ND	U	1.0	ug/L						
Surrogate: 1,4-Dioxane-d8	3.30			"	5.00		66	50-130		

LCS (B4F0111-BS1)

Prepared: 06/24/04 Analyzed: 06/26/04

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	5.5		1.0	ug/L	5.00		110	50-130		
Surrogate: 1,4-Dioxane-d8	3.60			"	5.00		72	50-130		



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Qualifiers and Comments

Q7	Surrogate spike recoveries for this sample were outside control limits.
Q10	The analyte concentration in the unfortified sample is significantly greater than the concentration spiked into the matrix spike and matrix spike duplicate. The reported spike recovery is not a meaningful measure of the dataset's analytical accuracy.
Q1	The internal standard associated with this analyte did not meet area count criteria.
J	The reported result for this analyte should be considered an estimated value.
C1	The reported concentration for this analyte is below the quantitation limit.
U	Not Detected
NR	Not Reported